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4. A method of designing an antenna array for a local multipoint distribution service system for transmitting a signal of reused frequency within a specified range from the antenna, the antenna having multiple radiating antenna elements, the method comprising the steps of:

adjusting the antenna elements in phase and in amplitude of radiated signal across the radiating elements to mitigate radiation above the horizon; and

adjusting each of the antenna elements in phase and in amplitude of radiated signal therefrom to decrease attenuation in radiated power with distance from the antenna.

5. A method as recited in claim 1 further comprising the step of:

adjusting each of the antenna elements in phase and amplitude of signal across the antenna elements to mitigate nulls between lobes of combined radiated signals collectively from the antenna elements.

6. A method as recited in claim 1 further comprising the step of:

adjusting each of the antenna elements in phase and in amplitude of signal across the antenna elements to reduce excess signal power at near range.